



Report on Business Transformation Initiatives

January 12th, 2018

Fiscal Year 2017 Report to Congress



Homeland
Security

U.S. Customs and Border Protection

Message from the Acting Deputy Commissioner of CBP

January 12, 2018

U.S. Customs and Border Protection (CBP) respectfully submits the Report on Business Transformation Initiatives (BTIs) pursuant to the language set forth in the *Trade Facilitation and Trade Enforcement Act of 2015*, (P. L. No. 114-125).

The report provides CBP's BTIs, including locations where the initiative is deployed, the types of equipment utilized, a description of protocols and procedures, information on wait times at such locations since deployment, and information regarding the schedule for deployment at new locations.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:



The Honorable Ron Johnson
Chairman, Senate Committee on Homeland Security and Governmental Affairs

The Honorable Claire McCaskill
Ranking Member, Senate Committee on Homeland Security and Governmental Affairs

The Honorable Michael McCaul
Chairman, House Committee on Homeland Security

The Honorable Bennie G. Thompson
Ranking Member, House Committee on Homeland Security

The Honorable Orrin Hatch
Chairman, Senate Committee on Finance

The Honorable Ron Wyden
Ranking Member, Senate Committee on Finance

The Honorable Kevin Brady
Chairman, House Committee on Ways and Means

The Honorable Richard Neal
Ranking Member, House Committee on Ways and Means

I would be pleased to respond to any questions you may have. Please do not hesitate to contact my office at (202) 344-2001 or the Department's Chief Financial Officer (Acting), Stacy Marcott, at (202) 447-5751.

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald D. Vitiello". The signature is fluid and cursive, with a long horizontal stroke at the beginning and a large, stylized "V" in the middle.

Ronald D. Vitiello
Acting Deputy Commissioner
U.S. Customs and Border Protection

Executive Summary

The Office of Field Operations (OFO) is the law enforcement component within CBP responsible for carrying out CBP's complex and demanding border security mission at all ports of entry. OFO manages the lawful access of people and goods to the United States by securing and expediting international trade and travel. Continued growth in international trade and travel, expanding mission requirements, and new facility demands continue to strain CBP resources and our efforts to secure the country.

Recognizing these challenges and the requirement to refine existing strategies, CBP developed a robust, integrated, long-term strategy for improving port operations called the Resource Optimization Strategy (ROS). The ROS was introduced in the *Fiscal Year (FY) 2012 Report to Congress on Resource Optimization at Ports of Entry* with three pillars: identify staffing requirements by accurately utilizing the Workload Staffing Model, reduce those staffing requirements by transforming business processes through the BTIs, and develop strategies to fund the required staff. CBP continues to update the progress on the strategy each fiscal year.

This report updates the report issued on September 23, 2016, and highlights CBP's Business Transformation Initiatives (BTIs) through FY 2018. CBP describes the progress of the BTIs developed through FY 2016, introduces BTIs implemented in FY 2017, and previews BTIs currently being developed for implementation by FY 2018. In addition to descriptions of the BTIs, CBP shares additional data related to the return on investment, impact of wait times, cost avoidance for CBP and stakeholders, and plans for future deployments for specific initiatives.

In FY 2016, CBP continued to implement transformation efforts by focusing on more efficient processing in the air, pedestrian, vehicle, and cargo environments. CBP made a concerted effort to implement the newest and most advanced technologies at the Nation's ports of entry to create efficiencies. Along with technological advancements, CBP deployed biometrics and processing enhancements and expanded Trusted Traveler Programs. These transformative initiatives and technological advancements provide the platform from which CBP can achieve operational success in the face of increased border and air traffic, budget constraints, and demand for new and expanded services at existing and proposed ports of entry.

CBP's efforts to implement and enhance BTIs along with partnerships with stakeholders have resulted in transformation efforts that reduced the need for over 1.4 million inspection hours and the equivalent of over 1,000 CBP officers (CBPOs) through FY 2016. CBP is embarking on more transformative initiatives to expand air traveler technologies, implement biometrics, automate forms collection, and eliminate duplicative processes to save an additional 500,000 inspection hours and 425 CBPOs equivalents through FY 2018.



FY 2017 Report on Business Transformation Initiatives

Table of Contents

I.	Legislative Language	1
II.	Background	2
III.	Business Transformation Initiatives	3
A.	Advance Automated Processing – Air and Sea Ports of Entry	4
B.	Advance Automated Processing – Land Ports of Entry	8
C.	Advance Paperless Solutions	12
D.	Build Mobility into CBP Operations and Functions	12
E.	CBP’s Vision for the Future – Air Ports of Entry	13
F.	Integrate Biometric Technologies	15
G.	CBP’s Vision for the Future – Land Ports of Entry	17
IV.	Impact of BTIs and ROS Strategies	22
V.	Conclusion	24
VI.	Appendix- List of Abbreviations/Acronyms	25

I. Legislative Language

This report was compiled pursuant to section 801(h) of the Trade Facilitation and Trade Enforcement Act of 2015; Pub. L. No. 114-125, which provides that:

The Trade Facilitation and Trade Enforcement Act of 2015; Pub. L. No. 114-125, Section 4 states:

Not later than 90 days after the date of the enactment of this Act and annually thereafter for the next five years, the Commissioner shall submit to the Committee on Ways and Means and the Committee on Homeland Security of the House of Representatives and the Committee on Finance and the Committee on Homeland Security and Governmental Affairs of the Senate a report on U.S. Customs and Border Protection's Business Transformation Initiative, including locations where the Initiative is deployed, the types of equipment utilized, a description of protocols and procedures, information on wait times at such locations since deployment, and information regarding the schedule for deployment at new locations.

II. Background

The Office of Field Operations (OFO) manages the lawful access to our Nation and economy by securing and expediting international trade and travel. Demand for services at ports of entry (POEs) continues to increase as U.S. Customs and Border Protection (CBP) takes on additional mission requirements, POE infrastructure expands, and trade and travel volumes continue to grow. Recognizing these challenges, CBP developed the Resource Optimization Strategy (ROS).

The ROS has three pillars: (1) identify staffing requirements by accurately utilizing the Workload Staffing Model, (2) reduce those staffing requirements by transforming business processes, and (3) develop strategies to fund the required staff. The second prong of the pillar, Business Transformation Initiatives (BTIs), describes CBP's transformative initiatives and technological advancements that provide the platform from which CBP can achieve increased capacity and operational success in the face of increased border and air traffic, budget constraints, and demands for new and expanded services at existing and proposed POEs. As a descriptor, this term is flexible and is not a permanent categorization of any one program or initiative. It is applied to those programs that contributed to the overall ROS strategy for a particular fiscal year. Finally, BTIs are broadly implemented nationwide, however if a specific deployment strategy is identified for a particular BTI through FY 2018, it is included in this report.

The ROS was introduced in the *Fiscal Year 2012 Report to Congress on Resource Optimization at Ports of Entry* with subsequent reports in each fiscal year. CBP also issued its first *Report on Business Transformation Initiatives* to Congress in FY 2016. The report outlined BTIs from FY 2012 through FY 2015 and estimates of BTIs through FY 2017.

In FY 2016, CBP continued to implement transformation efforts by focusing on more efficient processing in the air, pedestrian, vehicle and cargo environments. CBP made a concerted effort to implement the newest and most advanced technologies at the Nation's POEs to create efficiencies. This report summarizes BTIs that have been enhanced, implemented or will be implemented through FY 2018.





The ROS reports issued in FY 2013, FY 2014, FY 2015 and FY 2016 and the BTI report issued in FY 2016 provide detailed information on the BTIs implemented or enhanced in the respective fiscal years and can be found at <http://www.cbp.gov/border-security/ports-entry/resource-opt-strategy>.

III. Business Transformation Initiatives

CBP continues to develop BTIs in support of the ROS. These initiatives are an important pillar of the ROS as they help CBP to realign officer and agriculture specialist resources with priority initiatives. They also reduce required inspection hours, resulting in a decrease in overall workload requirements and equivalent staffing that creates a cost avoidance of salaries and expenses. Initiatives such as Automated Passport Control (APC), Mobile Passport Control (MPC), targeting and vetting programs, Vehicle and Pedestrian Ready Lanes, Trusted Traveler Programs, CBP Mobile and Transforming the New Immigrant Visa Process continue to result in significant actual and estimated savings. S&T

The table below summarizes CBP's avoidance of over 1.4 million inspection hours and 1,000 equivalent CBPOs through FY 2016 and estimates on how the implementation of BTIs avoids over 500,000 inspection hours, 400 officers and \$52 million in salaries and expenses through FY 2018.

Table 1 – BTI savings through FY 2016 and Estimated Savings through FY 2018

CBPO BTIs	 FY 2012 - FY 2016 Inspectional Hours Saved	 FY 2012 - FY 2016 Equivalent CBPOs saved	 FY 2017 - FY 2018 Inspectional Hours Saved	 FY 2017 - FY 2018 Equivalent CBPOs saved
Automated Passport Control	340,416	288	55,554	47
Mobile Passport Control	4,728	4	9,456	8
National Targeting Center	171,390	145	16,548	14
Sea Container Intelligence Screening	0	0	140,658	119
ESTA	95,742	81	15,366	13
Ready Lanes	98,106	83	26,004	18
Pedestrian Ready Lanes	52,008	44	8,274	7
Trusted Traveler Programs				
NEXUS	37,924	32	0	0
SENTRI	173,754	147	13,002	11
Global Entry	160,752	136	21,276	18
Transform New Immigrant Process	0	0	130,020	110
RPM Optimization	104,016	88	0	0
Automate I-94/I-94W - Air/Sea	92,196	78	0	0
Automate I-94 - Land Border	0	0	53,190	45
CBP Mobile	83,922	71	17,730	15
	1.41M	1.20K	502K	425

A. Advance Automated Processing – Air and Sea Ports of Entry

Travelers continue to embrace automation in the air environment as the share of passengers processed by automated means (APC, MPC and Global Entry [GE]) increased by 26 percent in FY 2016 from FY 2015.

1. APC Kiosks - The APC kiosk is a free service that does not require pre-approval and allows a traveler to voluntarily submit biographic information and answer declaration related questions prior to the primary inspection process. CBP systems query the traveler in real time and provide a response that is printed on a receipt that the traveler presents to the CBP officer. Travelers are

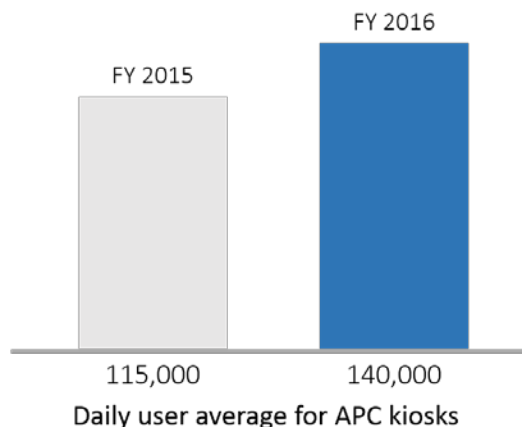
still inspected by an officer to verify the purpose and intent of travel, however, the self-service kiosk removes the administrative portion of the inspection resulting in shorter processing times and allowing the officer to focus on core law enforcement functions.

>55M Travelers who used APC kiosks in FY 2016

>1,500 APC kiosks operational at 45 locations

In FY 2016, more than 55 million travelers used the APC kiosks. Over 150 million passengers have been processed by APC kiosks since the beginning of FY 2014. In FY 2015, the average number of passengers using an APC kiosk daily was 115,000, more than doubling the FY 2014 usage. In FY 2016, the daily average increased to 140,000.

Figure 1: APC Statistics for FY 2016



More than 1,500 APC kiosks are currently operational at 45 locations: Abu Dhabi, Aruba, Atlanta, Austin, Baltimore, Boston, Charlotte, Chicago Midway, Chicago O'Hare, Dallas, Denver, Detroit, Dublin, Edmonton, Fort Lauderdale, Guam, Halifax, Honolulu, Houston, Houston (Hobby), Las Vegas, Los Angeles (Terminals 2, 5, 7 and TBIT), Miami, Minneapolis, Montreal, Nassau, JFK (Terminals 1, 4, 5 and 8), Newark (Terminal C), Oakland, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland, Reno, Salt Lake City, San Diego, San Francisco, San Jose, Seattle, Tampa, Toronto, Vancouver, Washington Dulles and Winnipeg. Future sites for APC kiosks include: Guam, Ottawa, Calgary, and Southwest Florida International Airport.

APC kiosks were initially restricted to travelers who did not require a visa. However, APCs with enhanced capabilities to process non-immigrant visitors traveling on business (B-1 visa) or pleasure (B-2 visa) and foreign arriving aircrew (D-1 visa) have been implemented in multiple locations.

Additionally, APCs are currently being piloted at Port Everglades for cruise ship travelers. This pilot of the first ever APC kiosks in the U.S. seaport environment began on June 4, 2016. Initial

processing is being tested on “closed loop” cruises (cruises that start and end in the U.S. and travel to near and contiguous islands) and the results have been successful. Processing will be expanded to include all cruises and to increase the number of kiosks.

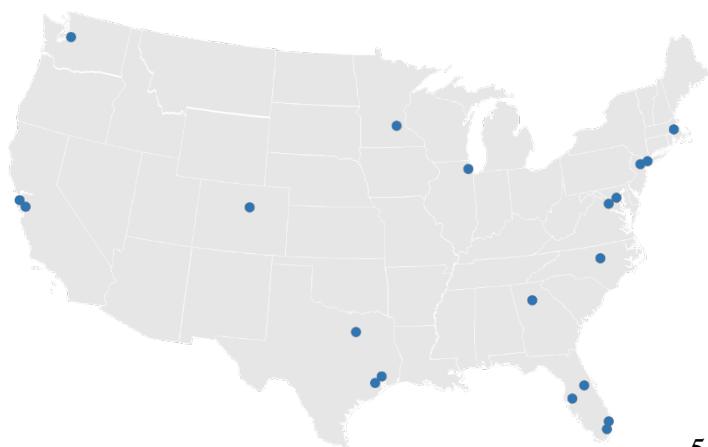
2. Mobile Passport Control - MPC is a mobile application developed in partnership with industry that is free to use and does not require pre-approval. It enables U.S. citizens and Canadian travelers equipped with a smart phone to answer CBP inspection related questions and provide biographic information to CBP prior to inspection. Travelers are still inspected by an officer to verify the purpose and intent of travel. However, MPC, like APC, removes the administrative portion of the inspection resulting in shorter processing times and allowing the officer to focus on core law enforcement functions.

MPC was deployed at 15 U.S. airports in FY 2016 and is now operational at 20 U.S. airports in total – Atlanta, Miami, Seattle, Chicago, San Francisco, Fort Lauderdale, Dallas-Fort Worth, Newark, JFK, Orlando, Denver, San Jose, Minneapolis, Dulles, Raleigh-Durham, Tampa, Boston, Baltimore-Washington, Houston-Bush, and Houston-Hobby.

Figure 2: Comparison of MPC in FY 2015 vs FY 2016

Fiscal Year 2015		Fiscal Year 2016	
15	Locations that offer MPC	20	Locations that offer MPC
2,700	Downloads per week	25,000	Downloads per week
123K	Total passengers processed through MPC	607K	Total passengers processed through MPC
\$1.2M	Estimated Value of Wait Time Reduction	\$2.0M	Estimated Value of Wait Time Reduction
4,750	Approximate uses per week	11,668	Approximate uses per week

Figure 3: Map of Locations with MPC



MPC is one of the most promising technologies to continue the facilitation of travelers in the future. In order to invest in this technology, CBP provided technical capability to use the MPC application in the cruise environment. Additionally, CBP is working with a vendor to explore integrating MPC with modified kiosks that collect biometrics, and expand usage to Visa Waiver Program (VWP) travelers. CBP also met with two Preclearance locations to discuss expansion to those locations.

3. Global Entry – The GE Program continues to expedite the entry of low risk pre-approved travelers, while helping CBP redirect resources to enforcement and the inspection of other high risk, unknown travelers. To participate in the GE Program, travelers submit an application which includes a fee, an in-person interview, background check and fingerprinting. Approved applicants receive a five-year membership. GE membership is over 3.4 million and there are currently 67 airports with GE kiosks.

During FY 2016, GE travelers waited an average of 24.5 minutes less (88 percent) than non-participants. In total, 5.5 million GE travelers waited 2.1 million fewer hours (value to the traveler: \$25.9 million) than if entry were processed by traditional means. The average GE crossing is 104.6 seconds faster than traditional processing and saved (in total) 162.1 thousand CBPO hours (valued at \$16.9 million).

Table 2 : Global Entry Savings Since Inception		
Traveler Crossings:		5.3 million
Traffic Share:		6.1%
Traveling Public	Per Traveler Wait Time Savings (minutes):	24.5 (88%)
	Total Reduced Traveler Wait (Hours):	2.1 million
	Value of Traveler Time Savings:	\$25.9 million
CBP Efficiency	Per Inspection Time Savings (seconds):	104.6 (100%)
	CBPO Hours Saved:	162 thousand
	Value of CBPO Hours:	\$16.9 million

4. National Targeting Center - CBP's National Targeting Center (NTC), the Immigration Advisory Program (IAP), and the Regional Carrier Liaison Group (RCLG) led CBP efforts in FY 2016 to identify and prevent the boarding of 14,293 high-risk travelers on flights destined for the United States. The IAP employs CBPOs at foreign airports where they review passenger information and/or assess the passenger documentation prior to their U.S.-bound flights. IAP officers make “no board” recommendations to carriers and host governments regarding passengers bound for the U.S. RCLGs, located in Honolulu, Miami, and New York, expand the Nation's zone of security beyond physical U.S. borders by working with commercial carriers to prevent the boarding of passengers who may pose a security threat, have fraudulent documents, or are otherwise inadmissible. The prevention of 14,293 travelers is an increase of 22 percent and the equivalent of five CBPOs over FY 2015. The program also resulted in the cost avoidance of over \$35 million in monetary costs to the industry.

In addition to the pre-departure efforts for travel, NTC led CBP efforts in the identification of inadmissible individuals in various application programs. Prior to travel to the United States, most foreign nationals intent on seeking admission as a visitor must obtain one of the following: Electronic System for Travel Authorization (ESTA), if eligible to travel under the VWP; or non-immigrant visa, adjudicated by the Department of State (DOS) and issued by a U.S. Embassy or Consulate.

NTC conducts continuous vetting of non-immigrant visa and ESTA status to ensure that changes in a traveler's eligibility are identified in near real-time. This allows CBP to immediately provide a “no board” recommendation to a carrier in imminent travel situations, to recommend that DOS revoke the visa, to deny an ESTA, or to provide additional notification for individuals

determined to be present in the United States. In FY 2016, NTC coordinated with DOS to revoke 2,833 visas and referred 8,188 individuals to U.S. Immigration and Customs Enforcement’s Homeland Security Investigations for further review.

5. Visa Waiver Program enhancements – The Electronic System for Travel Authorization (ESTA) was added in 2008 as a security enhancement to allow for preliminary vetting of those seeking to travel to the United States under the Visa Waiver Program (VWP). The VWP *Improvement and Terrorist Travel Prevention Act of 2015* (P.L. 114-113) (“the Act”), mandated the use of electronic passports by VWP travelers and established additional restrictions on VWP travel for certain dual nationals and others who may have traveled to certain countries of concern.

6. Transform New Immigrant Visa - CBP and the Department of State (DOS) Visa Office have been engaged in an ongoing effort with U.S. Citizenship and Immigration Services (USCIS) to transition to a paperless Immigrant Visa (IV) packet and an automated Form I-89. The current IV process is predominantly paper driven and based on the collection, transportation, and storage of hardcopy documents that are transferred between CBP, USCIS, and DOS. The current process fails to leverage current technology advances, biometric collection platforms and interfaces already shared by federal agencies, including the DOS Consolidated Consular Database, Arrival Departure Information System, and the Automated Biometric Identification System (referred to as IDENT). The anticipated date of a fully automated process within USCIS is late 2017. CBP is estimating this initiative will avoid the equivalent of over 100 CBPOs through FY 2018.

7. Preclearance Expansion - Preclearance operations in the air environment is the strategic stationing of CBP law enforcement personnel overseas to inspect travelers prior to boarding U.S.-bound flights. Through preclearance, CBPOs can conduct the same immigration, customs, and agriculture inspections of international air travelers typically performed upon arrival in the United States before departure from foreign airports. By moving inspections abroad, CBP can disrupt and deter terrorist threats before they reach U.S. borders and enhance travel facilitation, further reducing wait times at the Nation’s busiest POEs.

Figure 4: Preclearance Statistics for FY 2016

>600	CBPOs and CBPASs stationed abroad
18.2M	Travelers precleared in FY 2016
6,400	Inadmissible travelers prevented from boarding

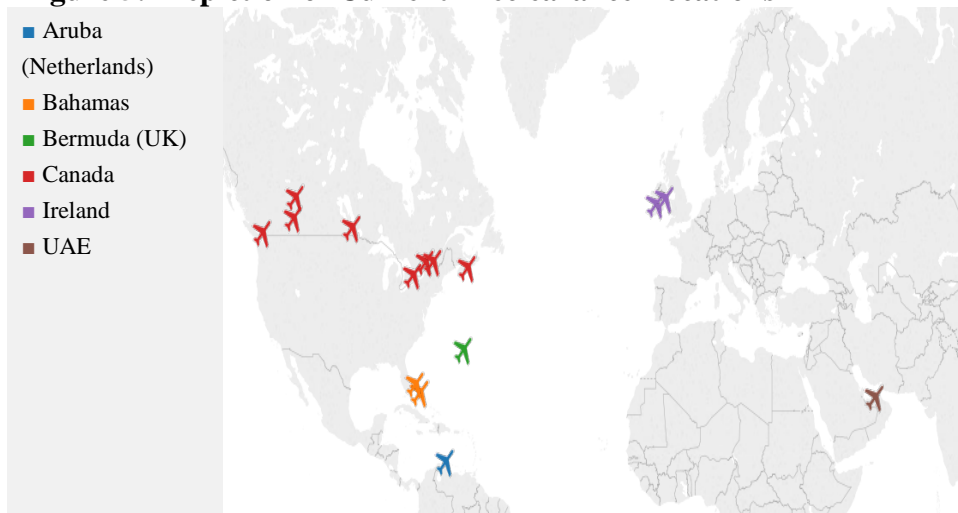
The aviation security benefits of preclearance are substantial because a uniformed, U.S. law enforcement officer interviews the precleared passenger before he or she boards the plane. This added security layer provides an additional opportunity to detect and stop threats as early in the process as possible. In addition to enhancing security, preclearance has the potential to increase capacity and growth opportunities for airports and air carriers in the United States and abroad, while improving the passenger experience. Preclearance generates the potential for significant economic benefits for the United States and our international partners through reducing wait

times at domestic gateways, creating an overall increase in clearance capacity, facilitating quicker connections to U.S. domestic flights, and maximizing aircraft and gate utilization. Travelers also have realized a reduced wait time on average when traveling through preclearance locations. As an example, passengers who fly through Dublin would face nearly 50 percent less time in queue than they would when being processed through domestic POEs.

Today, CBP has more than 600 law enforcement officers and agriculture specialists stationed at 15 air preclearance locations in six countries: Dublin and Shannon in Ireland; Aruba; Freeport and Nassau in the Bahamas; Bermuda; Abu Dhabi, United Arab Emirates; and Calgary, Toronto, Edmonton, Halifax, Montreal, Ottawa, Vancouver, and Winnipeg in Canada.

In FY 2016, CBP personnel stationed abroad precleared 18.2 million travelers, which was 15 percent of all commercial air travelers. Of those processed at preclearance locations in FY 2016, CBP was able to prevent 6,400 inadmissible travelers from boarding U.S.-bound flights.

Figure 5: Depiction of Current Preclearance Locations



CBP is currently negotiating with several of the countries prioritized during the first round of expansion, with planned preclearance location openings at Punta Cana in the Dominican Republic in FY 2017 and Stockholm in Sweden in FY 2018. In November 2016, CBP announced another 11 foreign airports in nine countries that have been approved to start preclearance negotiations in FY 2017.

B. Advance Automated Processing – Land POEs

CBP is experiencing an overall increase in wait times at the land border but specifically a significant increase on the southern land border POEs. In 2016, the Privately Operated Vehicle (POV) national average wait time is 18 percent longer than a year ago, at 20 minutes. Peak wait times have increased by 23 percent to 112 minutes. The rapid growth of Radio Frequency Identification (RFID)-enabled documents has stabilized: 66 percent of crossers used RFID-enabled documents to cross in 2016 compared to 65 percent last year.

In order to address this trend, CBP continues to implement the ROS to automate processing at the U.S. land POEs to expedite trusted or low risk traffic and focus on those arriving travelers that are unknown.

1. Ready Lanes - Ready Lane traffic share (not including NEXUS and SENTRI traffic) has increased two percent from a year ago. Ports with Ready Lanes have taken measures (such as traffic segmentation, improved signage, and more responsive active lane management) to increase Ready Lane benefits for participating travelers. In FY 2016, Ready Lane waits averaged five percent shorter than waits in the general lanes.

While Ready Lanes provide a wait time benefit to travelers, they also assist CBP. Since Ready Lanes are more efficient than general lanes, they process more vehicles (about 10 more) per hour than general lanes. This efficiency benefits CBP managers who are constrained by available booths (facilities) and staff (labor). In 2016, the average Ready Lane processed 62 vehicles per hour, per booth, compared to just 39 vehicles in the general lanes.

2. Pedestrian Ready Lanes - On the land border, pedestrian Ready Lanes allow any traveler carrying an approved document with RFID technology to use the lane for a faster border crossing. Pedestrian Ready Lanes process travelers 34 percent faster than general lanes.



Although pedestrian traveler volume has increased by two percent (up from 42 million in 2015 to 43.4 million in 2016), its share of traffic has declined from 38 percent to 35 percent over the same period. With seven out of every 10 pedestrians eligible for Ready Lane participation, CBP will endeavor to operate more Ready Lanes and maximize efficiency and traveler experience. Pedestrian Ready Lanes first opened at the Paso Del Norte crossing in El Paso, Texas, in November 2011 and have since have expanded to San Ysidro, Otay Mesa, Calexico West, San Luis, Hidalgo, Gateway, Bridge of the Americas, Columbus, Convent Street (Br 2), Deconcini, Del Rio, and Ysleta.

Travelers in pedestrian Ready Lanes wait an average of 12.8 minutes compared to 13.5 for travelers in general lanes.

Pedestrian Ready Lanes allow for a reduction in both cycle time and booth hours.

Pedestrian Ready Lane cycle time is 26.4 seconds compared to 40.1 seconds in the general lanes. The average Ready Lane processes over 100 pedestrians an hour, compared to just 60 for general lanes.

Figure 6: Pedestrian Ready Lanes FY 2016

	 General Lanes	 Pedestrian Ready Lanes
Cycle Time	40.1 seconds	26.4 seconds
Pedestrian Throughput	60/hr	>100/hr

While not all locations with pedestrian kiosks operate Pedestrian Ready Lanes, as of September 30, 2016, kiosks are deployed along the southern border at: Brownsville (Gateway Bridge and B&M Bridge), Pharr, Convent Street, Progresso, El Paso (PDN Bridge, BOTA and Ysleta), Columbus, Douglas, Nogales (Deconcini and Mariposa), San Luis, Andrade, Calexico (East and West), Tecate, Otay Mesa, and San Ysidro.

3. SENTRI and NEXUS – SENTRI and NEXUS programs continue to expedite low-risk vetted international travelers while enabling CBP to focus on those unknown or high-risk travelers. All Trusted Traveler participants undergo a rigorous background check and personal interview before enrollment. SENTRI travelers in FY 2016 waited an average of 24 minutes less (78 percent) than in the General Lane. In total, 15.3 million SENTRI travelers waited 15.1 million fewer hours (value to the traveler: \$189.5 million) than if entry were processed by traditional means. The average SENTRI crossing is 41 seconds faster than traditional processing and saved just over 174,000 CBPO hours, valued at \$19.3 million.

Table 3: Comparison of SENTRI and NEXUS

	SENTRI	NEXUS
Number of users	15.3M	3.9M
Time saved over General Lanes	78%	60%
Hours saved (by travelers)	15.1M	700,000
Hours saved (by CBPOs)	174,000	37,000
Monetary equivalent of CBPO savings	\$19.3M	\$4.1M

NEXUS travelers in FY 2016 waited an average of four minutes less (60 percent) than in the General Lane. In total, 3.9 million NEXUS travelers waited 700,000 fewer hours (value to the traveler: \$8.7 million) than if entry were processed by traditional means. The average NEXUS crossing is 34 seconds faster than traditional processing and saved just over 37 thousand CBPO hours, valued at \$4.1 million. However, the number of vehicles crossing under the NEXUS program decreased by a little over seven percent (approximately 300,000 crossings) in FY 2016. This trend is commensurate with a seven percent decrease in POV traffic at the Northern Border.

4. Expansion of Automated User Fees for Commercial Vehicles - A pre-inspection pilot operation at the Port of Buffalo in FY 2014 saw a reduction in processing time of 20-25 seconds per truck, which was partially attributable to the absence of manual user fee collections. By capturing best practices from the pre-inspection pilot, CBP identified and developed business requirements for automating the commercial truck user fee payment and collection process for single crossers (*i.e.*, pay-as-you-go) with end-goal of eliminating cash payments in truck primary. As of 2015, approximately 11 percent of commercial vehicles paid cash on primary. On June 2, 2016, CBP began piloting an automated payment option for single crossings at the ports of Buffalo, Detroit, and El Paso. The primary goal of the automated payment initiative for CBP is to reduce primary processing time and to alleviate CBPOs of administrative functions pertaining to the collection, accounting, and transmittal of user fees.

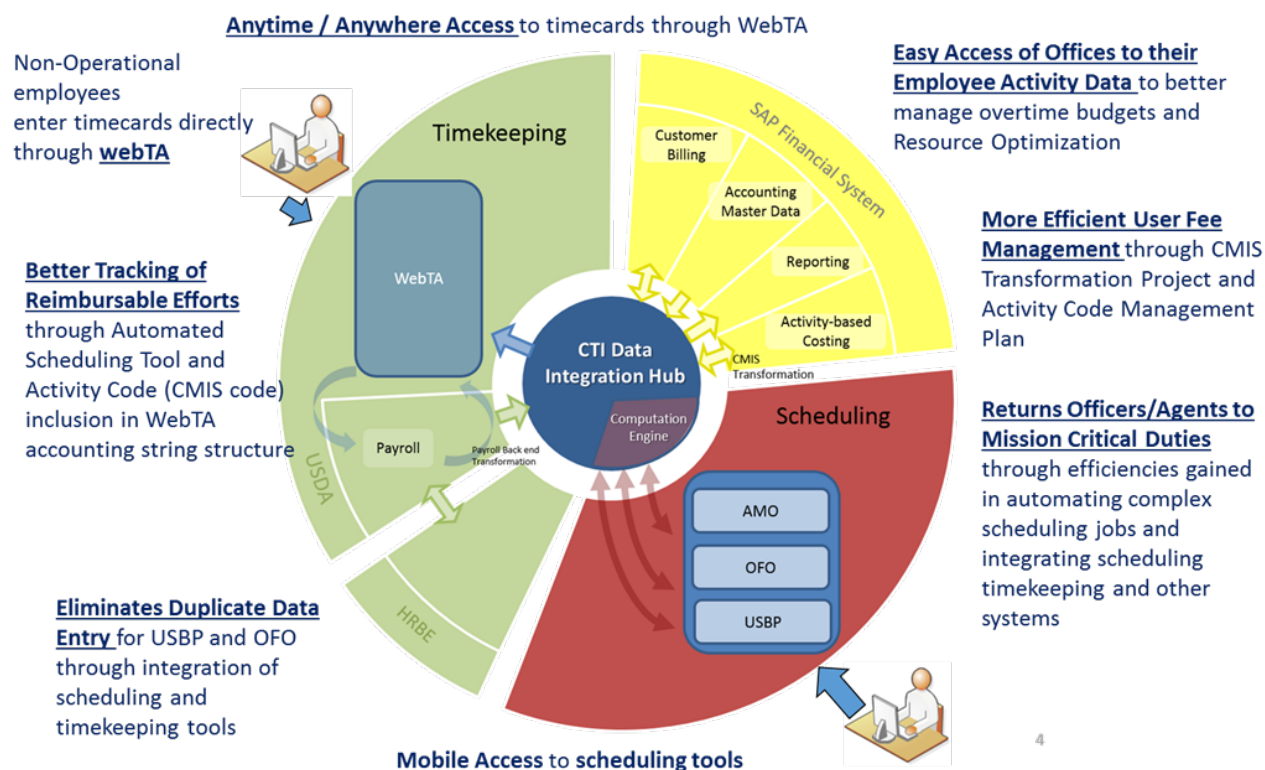
On November 28, 2016, CBP implemented the availability of the automated payment solution at the national level that will enable commercial truck carriers to pay the single crossing fee for any commercial crossing. Carriers or their agents can pay the single crossing user fee online via the enhanced Decal/Transponder Online Procurement System prior to arriving at the port, thereby reducing wait times, fuel consumption and vehicle emissions associated with border delays. Removing cash and credit card collections from primary will enable port management to optimize resources in order to facilitate trade and further ensure the security and safety of

international travelers. As of December 2016, there have been over 10,500 payments made using the new single-crossing payment option.

5. Automated Scheduling Tool Deployment/Expansion - In FY 2014, CBP initiated the Automated Scheduling Tool (AST) experimental program designed to automate the current manual personnel scheduling process. The goal was to reduce the estimated 400,000 hours spent yearly to support Scheduling and Overtime Management, therefore freeing up significant resources from administrative duties and allowing those resources to be redeployed in mission critical operational capacities. The initial experimental program conducted within the San Diego Field Office provided a strong baseline for future business system requirements (process, organization, technology) to institute standardized practices for personnel scheduling and overtime management in all OFO operational environments including land, sea, and air POEs.

Building on the success of the initial experiment, in FY 2016 the AST project expanded to an enterprise wide program. In FY 2017, the AST program will be implemented throughout all Ports in the Miami, Buffalo, New Orleans, El Paso, and San Francisco Field Offices. By the end of the fiscal year, over 10,000 CBP employees will be utilizing the new scheduling system with the remaining Field Offices scheduled for implementation in FY 2018. CBP is currently unable to develop an estimated CBPO savings for this program since it is in its infancy and is currently being operated parallel to the manual scheduling method.

Figure 7: Depiction of Benefits of Automated Scheduling Tool



C. Advance Paperless Solutions

1. Electronic Visa Update System - In November 2014, the Governments of the United States and the People's Republic of China (PRC) entered into an agreement on a reciprocal basis, to issue visitor and business travel visas (B-1/B-2, B-1 and B-2) with 10-year validity. That same agreement recognized that travelers would be required to periodically complete an online form updating their biographical information. On November 29, 2016, CBP implemented the Electronic Visa Update System (EVUS) to meet this requirement. The EVUS system is designed to easily accommodate the designation of new countries into the program.

The EVUS system provides an online mechanism for citizens of the PRC, or any designated country, to update biographic, passport, travel and eligibility information. The updated information is referred to as an enrollment and is valid for two years or until passport and/or visa expiration, whichever comes first. The information collected in EVUS will enhance the screening and verification process prior to travel. While the system is focused on citizens of PRC at this time, it was designed to easily adapt and include additional designated countries.

A successful EVUS enrollment for affected travelers is now an entry requirement at all modes of entry. Air and sea commercial carriers are required to verify EVUS enrollment prior to embarkation while CBP will verify enrollment prior to admittance at a land border POE.

D. Build Mobility into CBP Operations and Functions

1. CBP Mobile Program - During FY 2016, CBP Mobile was able to deploy a significant number of devices to support day-to-day operations, augmented operations, and special events. Over 1,750 ruggedized tablets, smartphones, biometric scanning peripherals and jump kits were shipped to the field in support of OFO inspection processing; U.S. Border Patrol enforcement operations; cargo examinations (for testing and development); and Air and Marine Operations' efforts.

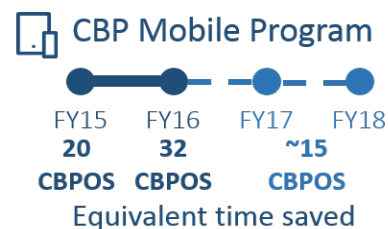
Android smart phones and Grabba fingerprint capture peripherals were deployed in support of expanding the Biometric Exit Mobile Air operations to six additional airports paving the way for further expansion in FY

2017. Ruggedized tablets were deployed in support of security efforts for the Super Bowl 50. CBP Mobile also provided full traveler

processing jump kits containing laptops,

fingerprint scanners, and machine readable zone (MRZ) document readers and cameras in support of special operations, including southwest border increased Haitian and Cuban inspection processing; at Laredo and San Ysidro during construction as part of wait time reduction efforts; train and cruise ship operations across the northern border; and increased security and general aviation inspections during the Democratic National Convention. The CBP Mobile Program saved the equivalent of 32 CBPOs in FY 2016 which is 12 more CBPOs than in FY 2015 and is estimated to save an additional 15 CBPO's through FY 2018.

Figure 8: CBP Mobile Program



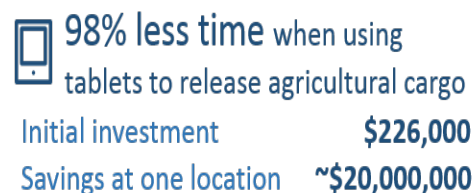
Ruggedized tablets were deployed in support of the MobileRefer – Streamlining Secondary Pilot at Douglas POE. The goal of the pilot was to provide a technical solution that would improve the effectiveness and efficiency of the primary to secondary process flow and reduce the overall secondary inspection process time. To date, this goal is successfully being accomplished as it has:

- Reduced time for a Primary Officer to refer a vehicle to secondary;
- Decreased wait times as a result of being able to keep primary lanes open because the booth officers no longer have to provide most secondary escorts;
- Eliminated the requirement for officers to enter Vehicle Primary Client (VPC) to input referrals and then draft handwritten paper referral slips to affix to vehicles; and
- Enhanced officer safety by minimizing distraction and expediting the referral process, allowing the officer to remain focused on the suspect and decrease the port runner possibility.

Prior to the Mobile Refer pilot, it would take an officer approximately two to three minutes to refer a vehicle to secondary. Since deploying Mobile Refer, the referral process times have been cut by 50 percent. It is expected that this result will improve over time with the implementation of proposed application enhancements and the completion of TECS modernization. Planning is underway for pilot expansion in FY 2017 with an eye towards nationwide deployment by the end of FY 2018.

Use of mobile technology has benefitted the trade community while providing savings for CBP. In FY 2016, CBP conducted an analysis at Port Everglades where mobile tablet technology was initially deployed. The study found that the use of the tablet to conduct agricultural releases of cargo as opposed to the use of a systems release for cargo release creates a 98 percent time savings within the release process. Specifically, the average release time drops from four to six hours to five minutes. For example, according to trade community interviews, the use of the tablet for the 21,000 tailgate inspections last year at Port Everglades resulted in approximately \$20 million savings in additional landed costs (reduction of overtime for equipment and local warehouse personnel, late gate fees, truck related costs, and other non-CBP costs that commonly occur in 20 percent of Agriculture shipments). When compared to the initial investment of \$226,000, OFO has delivered a significant return for their initial investment at just a single POE and continues to expand these capabilities nationwide.

Figure 9: CBPAS Mobile Release Savings



E. CBP's Vision for the Future – Air Ports of Entry

In addition to the success of the BTIs mentioned above, in FY 2016 CBP developed an OFO Innovation Strategy. The OFO Innovation Strategy leverages the recurring BTIs, supports the new BTIs and envisions where CBP goes in the future. The goal of the strategy is a unified CBP process that utilizes the latest technology to enhance frontline risk assessment capabilities,

streamline processes, and augment operational efficiency while maintaining or enhancing security. In order to achieve this goal, CBP identified a vision for the future and four objectives: advance automated processing, advance paperless solutions, build mobility into CBP operations and functions, and integrate biometric technologies.

To realize the national goal of a “best-in-class” arrival experience, CBP’s *Future Vision* includes pursuing a substantial transformation of CBP’s business processes. While today’s process conceptualizes a “Technology First” kiosk-based process upon arrival in the United States, this plan utilizes travel document and biometric information at different points in the travel process and replaces the need for automated kiosks upon arrival with a more streamlined approach that both enhances security and supports travel facilitation.

CBP’s Future Vision begins with the first collection of Advance Passenger Information System (APIS) biographic data from a travel document prior to departure. When passengers check in with an airline, the airline inputs travel document information and transmits it to CBP for predeparture analysis. This process enhances security by allowing CBP to verify the accuracy and authenticity of the APIS information provided prior to an individual being issued a boarding pass. Upon transmission and query of APIS, CBP will provide airlines with a response advising the carrier of a traveler’s authorization to board or other status. This process increases security through predeparture risk analysis and identification of potential threats, in addition to increasing facilitation through advance risk segmentation.

Between departure and arrival, APIS data collected will be used to pull and create a corresponding “biometric manifest.” This manifest will comprise an Automated Biometric Identification System (referred to as IDENT) subset, pulled from matches between APIS and IDENT; it also will be used to identify travelers with no biometrics on record. Upon arrival and through a biometric scan, passengers will be identified for appropriate processing.

Upon arrival in the United States, travelers will encounter a unified and modernized CBP process beginning with “Baggage First.” The new facility concept of “Baggage First” presents both security and facilitation benefits for CBP and travelers by allowing CBP to streamline its footprint and allocate resources more efficiently. In advance of primary and in the baggage claim area, rovers—both CBPOs and CBPAS canine components—will be able to assess, identify, and triage issues, enhancing security through early identification of agricultural and other law enforcement issues and facilitating legitimate travelers through such risk segmentation. With a streamlined footprint, CBP gains greater flexibility to allocate resources between roving, primary, and secondary operations. In addition, a consolidated footprint allows for enhanced coordination for CBP and a streamlined experience for the traveler.

Once a traveler has collected his or her baggage and reaches CBP primary, CBP will capture the same facial biometric to reconnect with the APIS information and facial biometric collected predeparture through the Document Validation process. This process confirms identity and retrieves associated passport, visa, and other relevant information—removing the need for CBP to handle travel documents and other paper.

The use of biometric technology in the CBP arrivals area is key to modernizing air passenger processing and meets multiple objectives of OFO's Innovation Strategy. Biometrics enhance OFO's security posture; facilitate going paperless; and advance automated processing, progressing from a kiosk-based process and opening up facility space. In addition, biometric confirmation at entry may also be used to confirm exit with integrated biometric technologies on outbound. This plan does acknowledge, however, that there may continue to be a need for limited traditional processing in situations where biometric entry is not possible; accordingly, facilities will incorporate a limited number of CBPO and CBPAS stations in both primary and secondary, equipped for the traditional process.

OFO will also use biometric identification and matching to record departures from the United States. This will both enhance OFO's operational control of the exit environment and allow DHS to comply with congressional mandates.

Creating the CBP Arrivals Area of the Future on the basis of the *Future Vision* requires significant expansion of CBPO use of mobile technology and a consolidation of all CBP operations in one location of the Federal Inspection Services (FIS) area. In addition to deploying more than 1,500 mobile tablets, CBP is piloting its use of biometric identity validation technologies at select locations. This technology assists CBP in the validation of travel documents presented by passengers for inspection.

CBP also is working diligently to publish the next iteration of the Airport Technical Design Standard (ATDS), which incorporates many of the *Future Vision's* design requirements, by December 2017. Because the ATDS applies to only *new* facilities, a major challenge at many current locations is facility capacity, including sufficient space for the passenger queue and enough distance between booths or podiums to accommodate travelers with baggage. Significant baggage delivery delays may cause bottlenecks that affect overall passenger processing.

Over the next few years, CBP will continue to aggressively develop and test these business processes at the Maryland Test Facility (MdTF) with both realistic operational environment and lab-controlled performance and usability studies for various mixes of advanced technologies combined with the OFO concepts of operations. CBP will also expand its BTIs such as APC, MPC, and Global Entry; and partnerships with willing private sector partners at Seattle, Orlando, and Fort Lauderdale to incorporate new concepts into their new facility designs.

F. Integrate biometric technologies

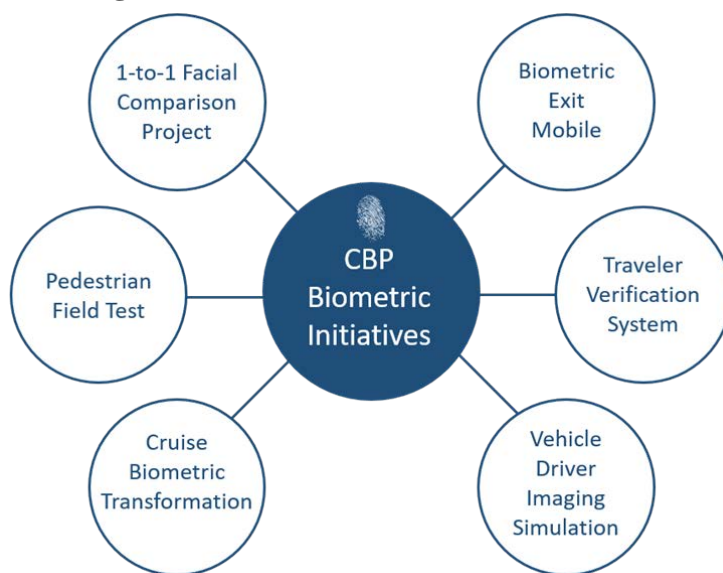
The integration of biometrics is essential to CBP's ROS and OFO Innovation Strategy. In addition to the use of biometrics outlined above, CBP continues to pursue the initiatives below to advance our biometric strategy.

1. Biometric Exit Mobile (BE-Mobile)

BE-Mobile has provided data critical to the planning and execution of a successful biometric exit program. The results of the statistically valid data proved essential in formulating concepts of operation for a biometric exit system. At airports, outbound inspection teams are now using new hand-held mobile devices to collect biometric information – fingerprints – on specific foreign travelers departing the United States. These devices allow CBP to both biometrically record the traveler's departure from the United States and to run the fingerprints against the IDENT biometric database which provides the CBPO with the Office of Biometric

Identity Management (OBIM) watchlist hits. These devices are currently being used at the 10 largest airports, with more airports in the planning stages. They have significantly decreased the effort required to process outbound travelers at the gate. BE-Mobile will be one of the CBP platforms for future mobile processing by officers for biometric exit as well as a more cost-effective solution for locations where limited international departures and sufficient officer staffing make it an operationally feasible biometric exit solution.

Figure 10: CBP Biometric Initiatives



2. 1-to-1 Facial Comparison Project - Through the success of the 1-to-1 project, CBP was able to determine that facial comparison offered a valuable and operationally feasible solution for helping officers biometrically confirm identity with confidence. The collected biometric data will also be the key to the biometric services used throughout the entirety of the travel process that CBP and our stakeholders can leverage to the maximum benefit of travelers. At Washington Dulles International Airport and John F. Kennedy International Airport, CBP is using facial comparison technology to assist CBPOs in confirming the identity of specific travelers entering the United States. When the technology is used, it compares a photo taken at the booth to the photo stored in the ePassport to verify that the person presenting the document is its true owner.

3. Traveler Verification System (TVS) - As of June 2017, CBP is utilizing facial comparison technology called the Departure Information System Test (DIST) at limited departure gates at Hartsfield-Jackson Atlanta International Airport, Washington Dulles International, and George Bush Intercontinental Airport to verify the identity of travelers departing the United States. By comparing a picture taken at the gate with photographs of the specific traveler previously captured by DHS and/or the U.S. Department of State (DOS), CBP is able to biometrically verify the identity of the traveler as they board the plane. Currently in the testing phase, CBP has operationalized this effort by adding real-time matching response and confirmation that the traveler has departed the United States. CBP will continue to implement biometric exit at five additional airports over the course of the next several months. Under this approach, CBP will

learn best practices for operations and integration into existing airline boarding processes as these processes vary from airport to airport.

4. Pedestrian Field Test - At the Otay Mesa POE, CBP tested new technologies to collect biographic and biometric (face and iris) data on pedestrians entering and departing the United States on foot. In addition to testing a concept of operation for the land border, the Pedestrian Field Test provided valuable information to CBP's test of the DIST in Atlanta on biometric capture rates for different concepts such as on-the-fly and stop-and-pause. It also provided CBP valuable data about the ability to match facial photographs to varying size galleries as opposed to the 1:1 comparison tested previously. Additionally, due to their real-time operational nature, BE-Mobile and the Traveler Verification System have allowed CBP to apply varying concepts of a biometric exit system and resolve impacts to the current travel processes.

5. Vehicle Driver Imaging Simulation - CBP is testing technologies, in collaboration with the Oak Ridge National Laboratory, that capture a driver's image while inside of a vehicle departing the United States at driving speed. The simulation will determine how often, and under what circumstances, a facial recognition quality image can be captured under these conditions.

6. Cruise Biometric Transformation - CBP and a major cruise line are discussing high-level business transformation opportunities surrounding the use of facial recognition in the embarking and debarking processes for cruise passengers. With this technology, both CBP and the cruise line are looking to facilitate travelers' arrival while enhancing security.

OFO continues to utilize the DHS/S&T extensive biometric technology body of knowledge and deep HSARPA subject matter expertise to support these initiatives.

G. CBP's Vision for the Future – Land Ports of Entry

Land Border Reengineering (LBR) is a business transformation effort aimed at fundamentally transforming operations at land border POE across the country by identifying pressing issues and brainstorming and implementing mission-focused innovative solutions. More importantly, LBR is a field-driven initiative that empowers CBPOs – the day-to-day operators – to brainstorm efficiency recommendations and help implement new solutions in the field. The goals of LBR are to advance land border port security, enhance officer safety at land ports, improve the traveler experience, and optimize passenger inspection processing.

One of the ongoing initiatives is the automation of the CBP Form I-94 on the Land Border. In May 2013, CBP automated Arrival-Departure Record Form I-94 in the air and sea environment. The automation allows for the CBPO to utilize information provided in passenger manifests to electronically create a Form I-94, eliminating the need for paper forms and manual data entry. CBP has reported over 86,000 inspectional hours avoided by the automation of the I-94 in the air and sea environment since FY 2013.

The current land border I-94 process, to include the I-94W (for visa waivers travelers), unfortunately remains labor intensive for CBPOs. The Workload Staffing Model (WSM)

estimates 887 CBPOs are dedicated to the processing of this form in FY 2017. As part of an ongoing effort to streamline the issuance of I-94s at land POEs, CBP redesigned the existing I-94 web portal to include additional functionality that allows a traveler to submit information to CBP and pay the required fee for an I-94 prior to arrival at a land POE. Specifically, as of September 28, 2016, travelers who intend to enter the United States via a land border POE may now submit their biographic, document and address information to CBP prior to arrival along with the \$6 dollar processing fee that CBPOs currently collect manually. Once the submission is accepted, the traveler has seven days to appear at a POE to complete the inspection, which includes an interview and biometric collection.

As of June 22, 2017, over 38,000 travelers have used the new online system. It is estimated that the new process will reduce the I-94 process time by almost 50 percent. CBP estimates savings equivalent to 45 CBPOs with a cost avoidance of over \$5 million CBPO salaries and expenses through FY 2018. The new web portal is user-friendly and the site conforms to fit mobile devices. The enhanced web portal improves the traveler experience and better facilitates the issuance of Form I-94 at land border POEs.

In addition to the expansion of this initiative, CBP will pilot the following initiatives:

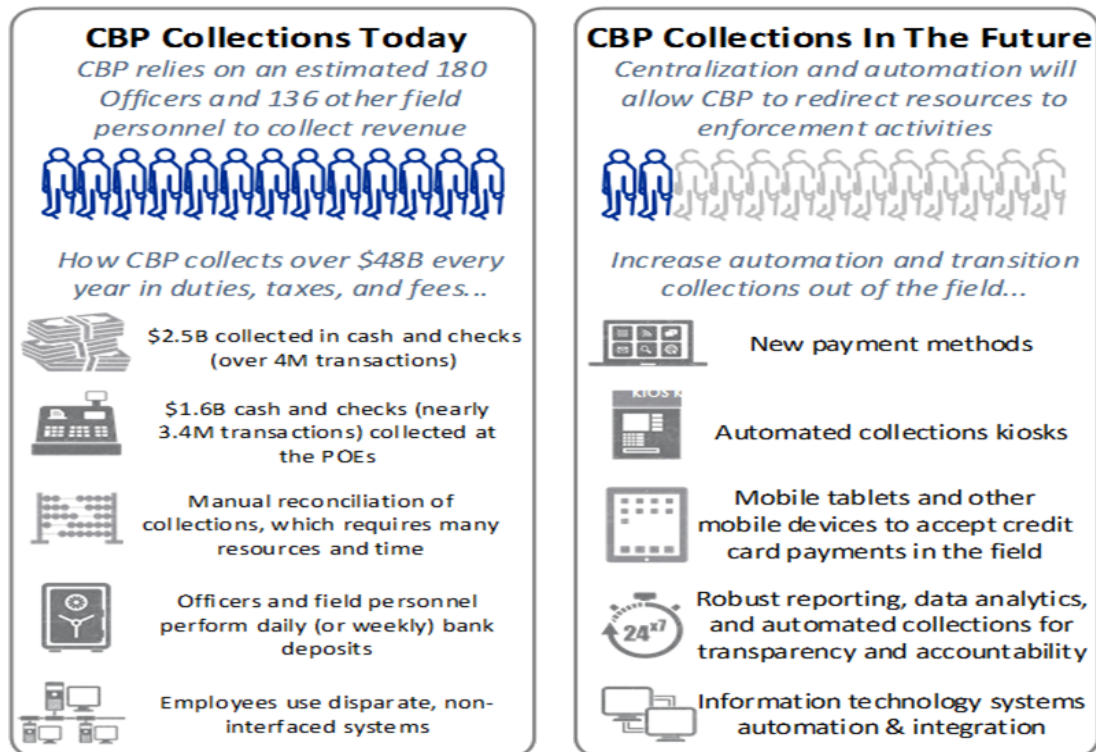
- Improving the I-94 process: CBP will expand the automation of the I-94 pilot to include the capture of biometrics for pre-vetting to increase POE efficiency.
- Improving Inspection Quality: Create a new, customizable, and mobile Vehicle Primary Client (VPC) system to empower officers to rely on law enforcement techniques rather than antiquated and administrative-focused technology to complete inspections.
- Redesigning Traffic Lane Management: Segregate crossing by traveler type [i.e., Trusted Traveler Programs (TTP)/READY or General] to reduce lane confusion between travelers at any one port and use facial recognition to verify TTP identities to speed processing and quality of inspection.
- Educating Travelers and Creating Traveler Incentives: Create an “I’m Ready” mobile application that allows travelers to pre-submit their information and expected travel times for expedited processing once they arrive at a POE; this also provides CBPOs insights into traveler volumes and trends in advance of traveler arrival.
- Phasing Out the Combined Automated Operations System (CAOS): Eliminate the duplicative CAOS randomized enforcement operation function by leveraging random compliance program capabilities for randomized audits; and ultimately phase out the use of the CAOS lane manipulation function by using the upgraded VPC system.

CBP plans to pilot these initiatives through FY 2018 and continue to source new innovative ideas from the field. Expected benefits from pilot implementation include reduced processing time, improved customer experience, and increased ability to detect law enforcement violations.

In addition reengineering effort at the land border, CBP has embarked on BTIs at the seaports as well. First is the Revenue Modernization Initiative. CBP collects approximately \$45 billion annually in duties, taxes and fees. This revenue is used throughout the Government to support critical programs and promotes U.S. trade and travel.

Although CBP collects the majority of revenue electronically, over \$2.5 billion is collected through checks and cash, of which \$1.5 billion (approximately 62.5 percent) is collected at CBP's POEs annually. This manual collection at the POEs equates to approximately 3.4 million time-intensive cash and check transactions by CBPOs and mission support staff. The manual process creates inefficiencies at the ports, delays cargo and traveler movement, and keeps CBPOs from focusing on critical security and compliance activities.

Figure 11: Future Vision for Revenue Modification (as of May 2017)



CBP's Revenue Modernization is a multi-year initiative with the goal of automating and centralizing revenue collections. This initiative focuses on a combination of business process and information technology solutions:

- Automated → Greater options for paying duties, taxes, and fees by leveraging technology
- Streamlined → Fewer people and processes involved for paying and collecting duties, taxes, and fees
- Centralized → Transition collections from POEs in order for CBPOs and field support personnel to focus on security, compliance and facilitation activities

One of the initiatives is to develop a mobile application to automate the process to collect duties owed by international travelers for purchases that exceeded their personal exemption and the payments of tonnage tax, commercial vessel fees and barge/bulk carrier fees, and user fees that are manually collected. A pilot was implemented in Long Beach, California and New Orleans, Louisiana sea ports at the end of April 2017 with full implementation estimated for late 2017.

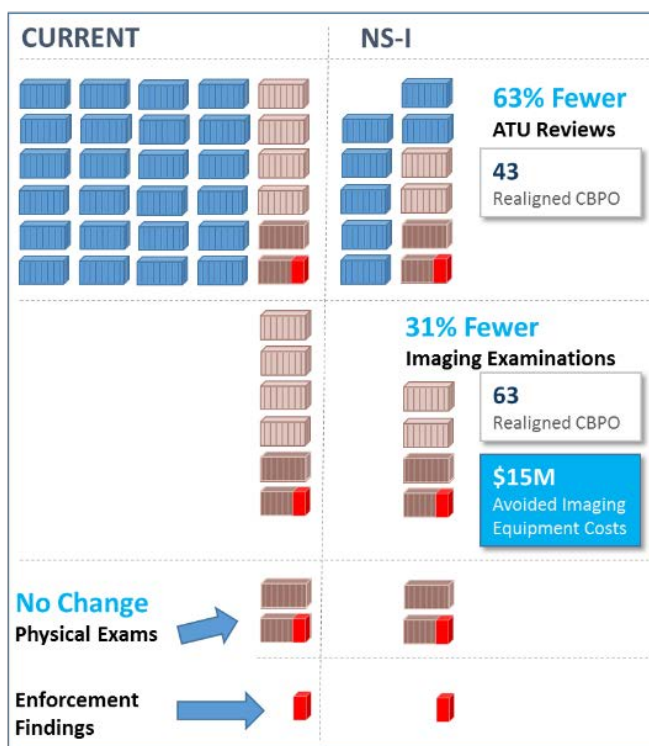
CBP also is responsible for safeguarding against National Security threats in the sea cargo container environment at U.S. sea ports of entry. In an ongoing effort to modernize, CBP has updated its decade-old security intelligence approach for targeting nuclear and other National Security threats at the seaports. The new approach, National Security – Inbound (NS-I) Maritime, matures CBP’s risk management and optimizes CBP’s resources to ensure agile and efficient operations. NS-I means better enforcement and fewer containers delayed at ports awaiting labor and time-intensive inspections. The end result improves screening agility and adaptability. CBP conducted an analysis to quantify NS-I efficiencies to demonstrate the benefits of “working smarter” through improved intelligence.

The NS-I approach streamlines non-value work through the entire container-arrival to container-release process. A two-month evaluation period showed that if the NS-I rules were in place, the time spent on non-value added activities could have been realigned significantly. As estimated, the streamlining of these activities (63 percent fewer shipment reviews and 31 percent fewer NII exams) can enable the realignment of over an additional 100 CBP Officers.

CBP currently spends over an estimated \$118 million (at the 13 largest seaports of entry) to conduct mandatory shipment reviews and container imaging examinations. With NS-I, CBP would instead spend just \$90 million in salaries and expenses on these activities – a realignment of approximately \$28 million annually. Compared to the relatively small one year investment (\$1.6 million), NS-I results in a 17:1 return on investment (1,677 percent).

Despite fewer shipment reviews and imaging examinations, the same number of physical examinations and enforcement findings should result. NS-I achieves its primary objective to provide higher quality national security targets. However, in addition to working smarter and achieving national security results, NS-I provides the added benefit of reducing costs for trade, as depicted in Figure 12. With fewer containers delayed at the ports for examination – shippers and receivers avoid costly examination, container transport, and container storage fees. Fewer

Figure 12: NS-I Estimated Benefits



delayed containers should also improve “time to market” and reduce inventory loss caused by delays. Reduced sea container shipping costs should bolster the sea container business, increase volume, and improve the U.S. economy as a result.

IV. Impact of BTIs and ROS Strategies

CBP also supported a significant increase in revenue from international travel. In the air environment, traveler volume continues to increase with over 119 million travelers in FY 2016, an increase of six percent more travelers in FY 2016 than FY 2015 and 36 percent more in the last eight years (2009). According to the U.S. Travel Association in a “U.S. Travel Answer Sheet” published in January 2016¹, international travel spending directly supported approximately 1.1 million jobs and \$29.2 billion in wages in 2014. Also, based on their analysis, the increase in international air travelers in FY 2016 from FY 2015 (6.7 million more travelers) would contribute up to an additional \$13 billion in spending (based on \$4,400 averaged spending and assuming 46.6 percent of additional arriving travelers were overseas visitors (6.7 million multiplied by .466) multiplied by \$4,400)). In the land environment, the overall number of travelers has remained flat (increase of less than 0.4 percent), the number of travelers crossing the Southern Border is on the rise by almost three percent with over 190 million total travelers. CBP anticipates the trend for air travel and southern border crossings will continue to increase.

In previous reports, CBP has shared the success of CBP’s commitment to innovation, partnerships, and the full implementation of the ROS. These successes were demonstrated by significant increases in automation and decreases in wait times. For example, in a comparison of FY 2013 to FY 2015, air passenger volume was up by 10 percent, the share of passengers processed by automated means (Global Entry, Automated Passport Control, and Mobile Passport Control) increased from 2.5 percent to 32.8 percent and booth staffing was up by 12.3 percent resulting in a national average wait time decrease of 15 percent. During the same time period, land border volume increased by 4.6 percent, and the share of vehicles facilitated by automation (Dedicated Commuter Lanes and Ready Lanes) increased from 32.2 percent to 38 percent while the average wait time decreased from 21.4 minutes to 18.4 minutes, a decrease of 14.3 percent.

Unfortunately, the impact of increasing volume of travelers in the air environment and the challenges of hiring the additional CBPOs on the land border has begun to result in an increase in wait times. Although not yet significant in the air environment, (the national average wait time increased by 2.26 percent (30 seconds)) it is more significant on the land border where the national average wait time for personally-owned vehicle increased 15 percent (three minutes), commercially-owned vehicle decreased 0.8 percent (six seconds) and Pedestrian decreased 1.1 percent (12 seconds). The impact was minimized in the air environment by additional staff and the increase in Trusted Traveler Programs and BTIs, though the increasing passenger volume will eventually outpace the efficiencies gained.

¹ https://www.ustravel.org/sites/default/files/Media%20Root/Document/US_Travel_AnswerSheet_Jan2016.pdf

**Table 4: Volume and Wait Time Comparisons for Air and Land Travel Modes
FY 2013 to FY 2015 and FY 2015 to FY 2016**

Time Frame	Mode of Transport	Volume Percent Change	National Wait Time Average Percent Change
FY 2013 – FY 2015	Air	+10.1	-15.9
FY 2015 – FY 2016	Air	+6.0	+2.26
FY 2013 – FY 2015	POV	+4.63	-14.3
FY 2015 – FY 2016	POV	+0.03	+16
FY 2013 – FY 2015	COV	+4.71	-.8
FY 2015 – FY 2016	COV	+3.08	-0.4
FY 2013 – FY 2015	Pedestrian	+0.27	-30.3
FY 2015 – FY 2016	Pedestrian	+2.96	-1.1

CBP recognizes this trend and understands the impetus to ensure the facilitation of trade and travel to continue to support the increases in volumes and traveler spending for the United States. CBP asserts that the commitment to business process improvement, technology, and partnering with our stakeholders continues to be the best strategy to meet our Travel and Tourism goal of being “Best in Class.”

V. Conclusion

CBP is committed to ensuring the security of our Nation's borders, while continuing to facilitate legitimate travel and trade. The implementation of BTIs, as part of the multi-pronged ROS, is vital to increasing capacity, improving operations at POEs and contributing to economic growth. BTIs are also necessary to improve the international trade and travel experience for our stakeholders.

In summary, CBP's ROS and BTIs have significantly contributed to facilitating trade and travel and resulted in a significant savings to stakeholders. At the POEs, GE participants waited 88 percent less than non-participants and at land POEs, SENTRI trusted travelers experienced a 78 percent reduction in wait times, compared with non-participants while NEXUS participants waited 60 percent less. APCs and MPCs continue to expand to additional airports and other environments while resulting in a significant decreases in wait times.

However, CBP recognizes that the significant increase in volumes and challenges in hiring on the southern border have resulted in a reverse trend of the decreasing wait times experienced over the past several years. This ongoing analysis has resulted in the strengthening of CBP's resolve to be relentlessly self-critical of our current business processes and seek innovative solutions to facilitate trade and travel and reduce costs for CBP and stakeholders.

CBP looks forward to the realization of significant savings from the Transformation of the Immigrant Visa and the Automation of the I-94 of the Land Border through FY 2018 which are estimated to avoid the need for hundreds of CBPOs. CBP also looks forward to updating Congress and stakeholders on the realization of our vision at the air, land, and sea POEs through FY 2019.

It is important to continue to consider BTIs as a part of an overall strategy that also includes accurately identifying staffing needs and alternatives to funding those needs. Taken together, CBP is able to increase workforce capacity while enhancing operations. CBP looks forward to working with Congress and welcomes input from legislators, state and local partners, and private sector stakeholders on transformative initiatives to improve operations in their respective areas of interest.

VI. Appendix- List of Abbreviations/Acronyms

Abbreviation/Acronym	Definition
APC	Automated Passport Control
AgRAM	Agriculture Resource Allocation Model
ATDS	Airport Technical Design Standards
APECs	Agriculture Pest Exclusion Coordinator Specialist
APIS	Advance Passenger Information System
ATU	Advanced Targeting Unit
BE	Biometric Exit
BTI	Business Transformation Initiative
CAOS	Combined Automated Operations System
CBP	U.S. Customs and Border Protection
CBPAS	U.S. Customs and Border Protection Agriculture Specialist
CBPO	U.S. Customs and Border Protection Officer (GS-1895)
COV	Commercially Owned Vehicle
DAP	Donation Acceptance Program
DHS	U.S. Department of Homeland Security
DIST	Departure Information System Test
EVUS	Electronic Visa Update System
EWI	Enter Without Inspection
FIS	Federal Inspection Services
FTE	Full-Time Equivalent Employee
FY	Fiscal Year
GE	Global Entry
GSA	General Services Administration
HSARPA	Homeland Security Advanced Research Project Agency
IAD	Washington Dulles International Airport
JFK	John F. Kennedy International Airport
LBR	Land Border Reengineering
MdTF	Maryland Test Facility
MPC	Mobile Passport Control
MRZ	Machine Readable Zone
NII	Non-Intrusive Inspection
NS-I	National Security - Inbound
NTC	National Targeting Center
OBIM	Office of Biometric Identity Management
OFO	Office of Field Operations
POE	Port of Entry
POV	Privately Owned Vehicle

Abbreviation/Acronym	Definition
PRC	People's Republic of China
RFID	Radio Frequency Identification
ROS	Resource Optimization Strategy
RPM	Radiation Portal Monitor
S&T	Science and Technology Directorate
SENTRI	Secure Electronic Network for Traveler's Rapid Inspection
TTP	Trusted Traveler Program
USCIS	U.S. Citizenship and Immigration Services
VPC	Vehicle Primary Client
WSM	Workload Staffing Model